

REMARKS

Claims 25-58 remain pending in this application, with claims 25 and 45 being the only independent claims.

The drawings have been objected to because they allegedly do not clearly detail the invention.

Claims 25-26 have been rejected under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 6,259,408 (Brady) in view of U.S. Patent No. 6,614,392 (Howard) and U.S. Patent No. 6,429,831 (Babb).

Claim 27 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 6,037,879 (Tuttle).

Claim 28 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 6,259,369 (Monico).

Claim 29 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 4,781,370 (Weisgerber).

Claim 30 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 4,815,376 (Sarda).

Claim 31 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, Babb, and Weisgerber, and further in view of U.S. Patent No. 6,206,292 (Robertz).

Claims 32-33 have been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 6,147,662 (Grabau).

Claims 34 and 36-28 have been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 6,265,977 (Vega).

Claim 35 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 6,343,550 (Feesler).

Claim 39 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 6,712,931 (Gron).

Claim 40 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, Babb, and Gron, and further in view of U.S. Patent No. 4,933,123 (Yoshida).

Claim 41 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, Babb, and Gron, and further in view of U.S. Patent No. 5,617,788 (Horiguchi).

Claim 42 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, Babb, and Gron, and further in view of Vega.

Claim 43 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of U.S. Patent No. 6,603,400 (Shoobridge).

Claim 44 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Babb, and further in view of “An All-Printed Passive Component...” by Redinger et al. (Redinger).

Claim 45 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady and Howard, and further in view of Patent No. WO 03/022594 (Yokota).

Claims 46-49 have been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Yokota, and further in view of U.S. Patent No. 6,371,024 (Scholzig).

Claims 50-52 have been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Yokota, and further in view of Vega.

Claim 53 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Yokota, and further in view of Gron.

Claim 54 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, Yokota, and Gron, and further in view of Yoshida.

Claim 55 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, Yokota, and Gron, and further in view of Horiguchi.

Claim 56 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, Yokota, and Gron, and further in view of Vega.

Claim 57 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Yokota, and further in view of Shoobridge.

Claim 58 has been rejected under 35 U.S.C. §103(a) as unpatentable over Brady, Howard, and Yokota, and further in view of Redinger.

Amendments to the drawings

The Office Action states that the Drawings have been objected to allegedly not sufficiently illustrating Applicants' invention.

Specifically, the Examiner requested a top view of Figs. 2 and 3, and a more detailed side view of Fig. 3.

Applicants' Fig. 2 is a top view showing tracks disposed side by side, i.e., arranged next to each other, on a substrate with a space therebetween. Applicants' Fig. 3 is a side view of another embodiment showing a conductor track on which an insulator is disposed, and another conductor track disposed on top of the insulator. A top view of the embodiment in Fig. 3 would simply show one track (i.e., the last printed track). The one, top track, occludes the insulator and the part of bottom track that is covered by the insulator and the top track. Thus, a top view of Fig. 3 is not useful.

Figs. 1-3 have been amended to include reference numbers to further illustrate and clarify Applicants' recited invention. No new matter has been introduced.

Amendments to the specification

The specification has been amended to reflect the amendments to the drawings.

No new matter has been introduced.

Rejection of Independent claim 25 under 35 U.S.C. §103(a)

The Office Action states that the combination of Brady, Howard, and Babb teaches all of Applicants' recited elements.

The present invention is directed to a method for producing RFID labels. According to the invention, metallic or conductive paste is transferred onto the printing material by sheet fed or web-fed offset printing (see paragraph [0008] and [0010] of the published version of the present application) or by a relief printing plate (see paragraph [0008]). The present application distinguishes the inventive methods from prior art printing methods including lamination of a coil on a label, printing by scan printing process or use jet processes (see paragraph [0005]).

Independent claim 25 recites, inter alia, "printing conductor tracks on a printing material by sheet-fed offset printing", which Brady, Howard, and Babb, whether taken alone or in combination, fail to teach or suggest.

The Examiner concedes that Brady and Howard both fail to teach or suggest "printing conductor tracks on a printing material by sheet-fed offset printing", as recited in Applicants' independent claim 25.

The Examiner cites col. 1, lines 35-40 of Babb as teaching printing by sheet-fed offset printing. Applicants submit that Babb has been misinterpreted. As described below, Babb discloses only that conductive ink may be printed using silk screening techniques. There is no indication that sheet-fed offset printing may be used to apply conductive inks to form conductor tracks for an antenna or a tuned circuit for an RFID.

Babb discloses a laminate RFID label and method of manufacture. According to Babb, the method of making a laminated article for use as an RFID label includes printing a first electrically conductive material to form two attachment pads, printing a dielectric material in a layer surrounding the attachment pads, printing a second electrically conductive material onto the dielectric material, printing a protective material containing heat expandable spheres in a layer surrounding the attachment pads; and expanding the expandable spheres to form a protective cavity containing the attachment pads (see claim 1 of Babb).

The Examiner cited passages of Babb read, “In order to minimize the cost of labels, the labels are fabricated in large quantities. One particular method of making the RFID label is to print a conductive material, such as silver conductive ink, in a pattern defining multiple antennae, onto a substrate. The ink may be printed using silk screening techniques, such as in a sheet fed or roll operation. Once the antennae are printed, each antenna is die cut into individual pieces. Each piece is placed in a carrier where an integrated circuit (IC) chip, such as a flip chip, is electrically connected to the antenna using conventional chip attachment methods. The chip is then encapsulated in an epoxy material and the entire assembly is sandwiched between protective layers.” Further, according to Babb, “A general objective of the invention is to provide a label which is easy and economical to manufacture. The laminated label may be formed by silk screening the materials forming the label on a releasable liner. The laminated label is easily

formed using automated equipment and it does not require a substrate” (see col. 2, lines 11-16 of Babb).

Screenprinting, silkscreening, or serigraphy is a printmaking technique that creates a sharp-edged image using a stencil (see attached Wikipedia reference). This is the very prior art that the present invention differentiates from (see paragraph [0005] of the published version of the present application).

In contrast, Applicants’ claim 1 clearly recites printing by sheet-fed offset printing. Offset printing is a widely used printing technique where the inked image is transferred (or "offset") from a plate to a rubber blanket, then to the printing surface. When used in combination with the lithographic process, which is based on the repulsion of oil and water, the offset technique employs a flat (planographic) image carrier on which the image to be printed obtains ink from ink rollers, while the non-printing area attracts a film of water, keeping the non-printing areas ink-free (see attached Wikipedia reference). As stated above, the use of silk screening techniques as disclosed by Babb fails to disclose teach or suggest "applying at least parts of an antenna and a tuned circuit required for functioning of the RFID label by printing conductor tracks on a printing material by sheet-fed offset printing", as expressly recited in independent claim 25.

Thus, Applicants’ recited offset printing step is completely different from the silkscreening technique taught by Babb. Further, Babb does not remotely hint at using an offset printing technique because Babb teaches avoiding using a substrate and printing directly on a release liner, such as silicone coated paper in order to reduce production costs (see col. 2, lines 52-59 of Babb).

In view of the foregoing, Brady, Howard, and Babb, whether taken alone or in

combination, fail to teach or suggest the subject matter recited in Applicants' independent claim 25. Accordingly, claim 25 is patentable over Brady, Howard, and Babb under 35 U.S.C. §103(a).

Rejection of claims 26-44 under 35 U.S.C. §103(a)

Brady, Howard, and Babb have been previously discussed and do not teach or suggest the invention recited in Applicants' independent claim 25.

Because Brady, Howard, and Babb do not teach or suggest the subject matter recited in independent claim 1 and because none of the other cited references teach or suggest any elements of independent claim 25 that Brady, Howard, and Babb are missing, the addition of any of the other cited references to the reference combination fails to adversely affect the non-obviousness of the claim.

Claims 26-44, which depend from independent claim 25, incorporate all of the limitations of independent claim 25 and are therefore deemed to be patentably distinct over Brady, Howard, Babb, and any of the other cited references for at least those reasons discussed above with respect to independent claim 25.

Rejection of independent claim 45 under 35 U.S.C. §103(a)

The Office Action states that the combination of Brady, Howard, and Yokota teaches all of Applicants' recited elements.

Independent claim 45 recites, inter alia, "printing conductor tracks on a printing material, directly or indirectly, using a relief printing plate", which Brady, Howard, and Yokota, whether taken alone or in combination, fail to teach or suggest.

The Examiner concedes that Brady and Howard fail to teach or suggest, “printing conductor tracks on a printing material, directly or indirectly, using a relief printing plate”, as recited in Applicants’ claim 45.

The Examiner cites paragraph [0038], lines 3-8 of Yokota as teaching using a relief printing plate. Applicants submit that Yokota has been misinterpreted and combining Yokota with Brady and Howard is improper. However, even if Yokota is combined with Brady and Howard, there is no suggestion that a conductor track for an antenna or a tuned circuit can be applied by a relief printing plate.

The Examiner cited passage of Yokota reads, “for improving the impact resilience of a printing plate obtained from the photosensitive resin composition of the present invention, the type of the organic compound (b) can be appropriately selected, based on the conventional knowledge on photosensitive resin compositions for forming printing plates (for example, a methacrylic monomer described in Unexamined Japanese Patent Application Laid-Open Specification No. Hei 7-239548 can be used).”

This portion of Yokota simply teaches that a selected organic compound can be used to improve the impact resilience of a printing plate. Nothing in the cited passage of Yokota teaches or suggests anything regarding RFID labels, printing RFID labels, using a particular printing process to produce an RFID label, printing electrically conductive tracks on a printing material, or using a relief plate to print electrically conductive tracks on a printing material.

Therefore, Yokota unequivocally fails to teach or suggest, “printing conductor tracks on a printing material, directly or indirectly, using a relief printing plate”, as recited in Applicants’ claim 45.

Further, Yokota discloses photosensitive resin composition for printing plate precursors capable of laser engraving. The photosensitive resin composition of Yokota is suitable as a material for forming a printing element used for producing an image-bearing printing plate, wherein the image-bearing printing plate is produced by removing a part of the printing element by laser beam irradiation (see paragraph [0013] of Yokota). Yokota further discloses that “it is an object of the present invention to provide a photosensitive resin composition which is especially advantageous for use in the production of a relief printing plate, which production is conventionally accompanied by a generation of a large amount of engraving debris” (see paragraph [0014] of Yokota). Thus, Yokota has absolutely nothing to do with RFID labels or producing RFID labels.

In contrast to Yokota, Brady discloses a radio frequency transponder that includes a substrate layer, a radio frequency integrated circuit affixed to the substrate layer, and an antenna provided on the substrate layer in electrical connection with the radio frequency integrated circuit. The radio frequency integrated circuit of Brady is disposed in a flip-chip configuration facing downward toward the substrate layer, with electrical contacts aligned with the antenna (see abstract of Brady).

Also in contrast to Yokota, Howard discloses an intelligent label that includes a radio frequency transponder coupled to a global positioning system, both of which are attached to a substrate. Once the intelligent label of Howard is attached to an object, it will enable the object to be tracked as it moves from one point to another point. As the object moves, the global positioning system of Howard receives signals from GPS satellites and processes those signals into location data. The data of Howard is then either transmitted directly to an interrogation station by the radio frequency transponder, or stored in a memory (see abstract of Howard).

Further, although Howard discloses that portions of the RFID wiring can be printed, Howard provides no details regarding the methods of printing such RFID wiring.

Clearly, the disclosure of Yokota has nothing whatsoever in common with the teachings of Brady or Howard. Further, Yokota does not teach or suggest that the printing plate produced by the disclosed method could be used for printing electrically conductive tracks.

Therefore, combining the teachings of Brady, Howard, and Yokota is improper since one skilled in the art would, in no way, be motivated to look to the teachings of Yokota to modify the teachings of Brady and Howard to produce Applicants' recited invention.

In other words, simply because Brady teaches an RFID, and Howard teaches that portions of an RFID circuit can be printed, and Yokota teaches a method for producing a printing plate does not mean that one skilled in the art would at all be motivated to use the printing plate produced by the method of Yokota to print portions of an RFID circuit, at least, because Howard provides no details regarding preferred or effective methods of printing the portions of RFID wiring.

In view of the foregoing, Brady, Howard, and Yokota, whether taken alone or in combination, fail to teach or suggest the subject matter recited in Applicants' independent claim 25. Accordingly, claim 45 is patentable over Brady, Howard, and Yokota under 35 U.S.C. §103(a).

Rejection of claims 46-58 under 35 U.S.C. §103(a)

Brady, Howard, and Yokota have been previously discussed and do not teach or suggest the invention recited in Applicants' independent claim 45.

Because Brady, Howard, and Yokota do not teach or suggest the subject matter recited in independent claim 1 and because none of the other cited references teach or suggest any elements of independent claim 45 that Brady, Howard, and Yokota are missing, the addition of any of the other cited references to the reference combination fails to adversely affect the non-obviousness of the claim.

Claims 46-58, which depend from independent claim 45, incorporate all of the limitations of independent claim 45 and are therefore deemed to be patentably distinct over Brady, Howard, Yokota, and any of the other cited references for at least those reasons discussed above with respect to independent claim 45.

Conclusion

In view of the foregoing, reconsideration and withdrawal of all rejections, and allowance of all pending claims is respectfully solicited.

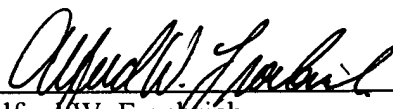
Should the Examiner have any comments, questions, suggestions, or objections, the Examiner is respectfully requested to telephone the undersigned in order to facilitate reaching a resolution of any outstanding issues.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

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